

Attorney Docket No.: 2003P12572US
Application No.: 10/642,629
Page 4 of 14

IN THE DRAWINGS:

The attached sheet of drawings proposes changes to Fig. 1 including adding element 118A and properly indicating element 134. No new matter has been added.

Attorney Docket No.: 2003P12572US
Application No.: 10/642,629
Page 10 of 14

REMARKS:

The Office Action dated 17 November 2005 has been reviewed, and the comments of the Patent Office considered. By this amendment, claims 1 and 16-21 have been canceled without prejudice or disclaimer; claims 2-6 and 10-13 have been amended; claims 7-9, 14, and 15 remain as originally filed; and claims 22 and 23 have been newly added. Thus claims 2-15, 22 and 23 are submitted for reconsideration.

Claims 16-21 were previously withdrawn as being directed to a non-elected invention and have been canceled without prejudice or disclaimer. Applicants retain the right to present claims 16-21 in a divisional application.

The specification stands objected to because of numerous informalities. These objections are respectfully traversed in view of the above amendments to paragraphs [0013], [0014], [0016], [0017] and [0027], and in view of the proposed revisions to Figure 1, wherein reference character 118A is added and reference character 134 is identify. Thus, it is respectfully submitted that the objections to the specification should be withdrawn.

Claims 1-15 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention. These rejections are respectfully traversed in view of the above amendments to claims 5, 6 and 10-13. Thus, it is respectfully submitted that the claims fully comply with 35 U.S.C. § 112, and the rejections under 35 U.S.C. § 112, second paragraph, of claims 2-15 should be withdrawn.

Claims 1-6 stand rejected on the ground of obviousness-type double patenting over claims 1-6 of copending U.S. Application No. 10/642,628, which was allowed December 21, 2005. These rejections are respectfully traversed insofar as the copending application recites a combination of features that includes a "coil group subassembly being independently testable" having a "first attaching portion," and a "valve group subassembly being independently testable" having "a tube assembly" including a "second attaching portion contiguous to the first attaching portion." In contrast, Applicants' independent claims 2-4 recite combinations of features including "a unitary seat assembly" having a flow portion and a securement portion that is not specifically required by the claims of the copending application. The Office Action fails to establish a *prima facie* case as to why one of ordinary skill in the art would omit the coil group subassembly, the first attaching portion and the second attaching portion so as to obtain the

Attorney Docket No.: 2003P12572US
Application No.: 10/642,629
Page 11 of 14

combination of features recited in the present application. Therefore, Applicants respectfully request that the obviousness-type double-patenting rejection be withdrawn.

Claim 1-5 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,390,067 to Haltiner, Jr. et al. ("Haltiner"); and claims 6-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Haltiner in view of U.S. Patent No. 6,572,028 to Fly et al. ("Fly"). To the extent that these rejections are applicable to claims 2-15, 22, and 23, Applicants respectfully traverse these rejections.

Claims 2-4 have each been rewritten in independent form. Each of these claims is directed to a fuel injector including, *inter alia*, a seat assembly disposed in the body, the seat assembly includes a unitary seat and an orifice disk. The seat includes a flow portion and a securement portion. The flow portion extends along the longitudinal axis between a first surface and an orifice disk retention surface at a first length and has a seat orifice extending therethrough. The securement portion extends along the longitudinal axis away from the orifice disk retention surface at a second length greater than the first length. The orifice disk is coupled to the orifice disk retention surface so that the orifice disk is aligned in a fixed spatial axial orientation with respect to the flow portion. The fuel injector also includes at least one weld extending from an outer surface of the body to the surface of the securement portion at a location distal to the flow portion.

Haltiner fails to show or describe the claimed invention. Specifically, Haltiner shows two different valve seat retainer arrangements. See Figs 1-2B and Figs. 3-5. As shown in Figs. 1-2B, Haltiner shows and describes a valve seat assembly 18 that includes a valve seat 52 that is fixed at an outlet end of the fuel passage. See col. 2, lines 55-57. As shown in Figs. 1-2B, it appears that the lower portion is longer than the upper portion defining the discharge opening 54. A valve seat retainer 70 is used to attach the valve seat assembly into the outlet end of the injector body by imparting an axial load to the valve seat and crimping the valve seat retainer 70 over a flange 80 on the lower portion of the injector body. See col. 3, lines 29-57. Clearly, there is no weld securing the valve seat 52 in place.

As shown in Figs. 3-5, Haltiner shows and describes a different valve seat 52 that is held in place by a valve seat retainer 82, 92, 110. In these embodiments, the valve seat 52 has a lower portion that is shorter than the upper portion defining the discharge opening 54. Furthermore, it is the valve seat retainer that is secured by welding and not the valve seat itself. Finally, because

Attorney Docket No.: 2003P12572US
Application No.: 10/642,629
Page 12 of 14

the valve seat retainer 82, 92, 110 is separate from the valve seat 52, the retainers are allowed to deflect to maintain a clamp load during and after assembly.

The Office Action alleges that "Applicant recognizes equivalency in the art of several known 'suitable attachment techniques' for fixedly attaching the valve seat member to the injector body of the invention, those techniques including laser welding, crimping, bonding, riveting, and friction welding or conventional welding." Assuming *arguendo* that this is the proper interpretation of Applicants' disclosure, it is irrelevant in a § 102 analysis because there is no single embodiment that teaches the recited combination of features. Moreover, even if one of ordinary skill in the art was motivated to combine the two different arrangements, Haltiner would still not teach or suggest at least one weld extending from an outer surface of the body to the surface of the securement portion at a location distal to the flow portion because all embodiments of Haltiner use a separate valve seat retainer.

For at least these reasons, Haltiner does not anticipate claims 2-4 and the § 102 rejections must be withdrawn. Claims 5-15, 22, and 23 depend, either directly or indirectly, from one of independent claims 2, 3, and 4 and are also allowable for at least the same reason as the independent claim from which they depend, as well as for its additionally recited subject matter.

As noted previously, Haltiner fails to show or describe the features recited in independent claim 2 from which claims 6-15 depend. Fly shows and describes a needle seat 18, a needle guide 20, and an orifice disk 22. See Fig. 1 and col. 3, lines 52-54. Fly does not show or describe the particulars of the claimed seat assembly and at least one weld. Applicants note that the Examiner relied on Fly as showing or describing features unrelated to the needle seat 18. Therefore, even if one of ordinary skill in the art was motivated to combine Haltiner and Fly, the proposed combination would fail to teach the claimed invention. Therefore, the § 103 rejection of claims 6-15 cannot be maintained.

The Office Action also alleges that "Applicant recognizes equivalency in the art of an armature assembly being either a one-piece member or two separate, but joined pieces . . . , and therefore, Applicant recognizes that the formation of either a one piece or two-piece armature assembly is not critical to the proper functioning of Applicant's [sic] fuel injector." It is unclear how criticality of a feature is relevant to the patentability of the invention. In fact, M.P.E.P. § 2143 sets forth the criteria for establishing a *prima facie* case of obviousness and does not raise the issue of criticality as one of the three basic criteria. As noted previously, because the

Attorney Docket No.: 2003P12572US
Application No.: 10/642,629
Page 13 of 14

proposed combination fails to teach or suggest all the claim limitations, the § 103 rejection cannot be maintained and should be withdrawn.

Attorney Docket No.: 2003P12572US
Application No.: 10/642,629
Page 14 of 14

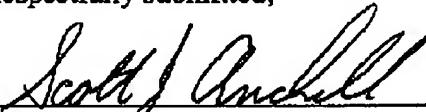
CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration of this Application and the prompt allowance of claims 2-15, 22 and 23.

Should the Examiner feel that there are any issues outstanding after consideration of this reply, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution of the application.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 08-1641. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,



Date: 17 February 2006
Heller Ehrman LLP
1717 Rhode Island Avenue, NW
Washington, D.C. 20036
Telephone: (202) 912-2000
Facsimile: (202) 912-2020

Scott J. Anchell
Agent for Applicants
Reg. No.: 35,035

Customer No. 26633